WHAT IS CLAIMED IS:

1   1.   A method for reducing acquisition times in a GPS receiver associated with a

2   cellular device, comprising the steps of:

3   determining at startup of the GPS receiver occurrence of at least one of the

4   following conditions: ephemeris data at the GPS receiver older than a predetermined period

5   of time and a change in a mobile country code and mobile network code of the cellular

6   device associated with of the GPS receiver;

7   obtaining data for the GPS receiver from a reference server responsive to

8   occurrence of one of the conditions; and

9   calculating a current position of the GPS receiver at a reduced acquisition time

10   using at least the obtained data.

1   2.   The method of Claim 1, wherein the step of obtaining further comprises the

2   step of obtaining ephemeris and almanac data from the reference server via the internet.

1   3.   The method of Claim 1, wherein the step of obtaining further comprises the

2   step of obtaining ephemeris and almanac data using a WAP protocol.

1   4.   The method of Claim 1, wherein the step of determining further comprises the

2   step of comparing a present mobile country code and mobile network code with a previous

3   mobile country code and mobile network code to determine if a change has occurred in the

4   mobile country code and mobile network code of the GPS receiver.

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1   5.   The method of Claim 1, further comprising the step of obtaining an

2   approximate position of the GPS receiver based upon a present mobile country code and

3   mobile network code associated with the GPS receiver.

1   6.   The method of Claim 5, wherein the approximate position comprises a

2   longitude and latitude.

1   7.   The method of Claim 5, wherein the step of obtaining the approximate

2   position further comprises the steps of:

3   comparing the present mobile country code and mobile network code with

4   entries in a table of mobile country codes and mobile network codes having position data

5   associated therewith to locate a corresponding mobile country code and mobile network

6   code; and

7   selecting the position data associated with a corresponding mobile country

8   code and mobile network code as the approximate position of the GPS receiver.

1   8.   The method of Claim 1, wherein the step of calculating a current position

2   further comprises the step of determining a current position using the approximate position of

3   the GPS receiver.

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1   9.   The method of Claim 1, further comprising the step of obtaining a present

2   time associated with the GPS receiver based upon the mobile country code and the mobile

3   network code associated with the GPS receiver.

1   10.   The method of Claim 9, wherein the step of obtaining the present time further

2   comprises the steps of:

3   accessing a table of mobile country codes and mobile network codes having

4   position data associated therewith;

5   comparing the present mobile country code and mobile network code with

6   entries in the table to locate a corresponding mobile country code and mobile network code;

7   determining if the position data has changed by a selected amount between the

8   present mobile country code and mobile network code and the corresponding mobile network

9   code and mobile country code; and

10   if the position data has not changed by the selected amount, determining a

11   time for a previously used time zone.

1   11.   The method of Claim 1, wherein the predetermined period of time

2   corresponds to approximately two hours.

1   12.   The method of Claim 1, wherein the step of obtaining further comprises the

2   step of obtaining ephemeris and almanac data using a Mobile Internet Protocol.

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1   13.   A method for reducing acquisition times in a GPS receiver associated with a

2   cellular device, comprising the steps of:

3   determining at startup of the GPS receiver occurrence of a change in a mobile

4   country code or mobile network code of the cellular device associated with the GPS receiver;

5   accessing a table of mobile country codes and mobile network codes having

6   position data associated therewith;

7   comparing the present mobile country code and mobile network code with

8   entries in the table to locate a corresponding mobile country code and mobile network code;

9   selecting the position data associated with a corresponding mobile country

10   code and mobile network code as an approximate position of the GPS receiver; and

11   calculating a current position using the approximate position of the GPS

12   receiver at a reduced acquisition time using at least the position data.

1   14.   The method of Claim 13, further comprising the step of obtaining ephemeris

2   and almanac data from a reference server via the internet.

1   15.   The method of Claim 14, wherein the step of obtaining further comprises the

2   step of obtaining ephemeris and almanac data using a Mobile Internet Protocol.

1   16.   The method of Claim 14, wherein the step of obtaining further comprises the

2   step of obtaining ephemeris and almanac data using a WAP protocol.

1   17.   The method of Claim 13, wherein the step of determining further comprises

2   the step of comparing a present mobile country code and mobile network code with a

3   previous mobile country code and mobile network code to determine a change has occurred

4   in a mobile country code or mobile network code of the GPS receiver.

1   18.   The method of Claim 13, further comprising the step of obtaining a present

2   time associated with the GPS receiver based upon the mobile country code and the mobile

3   network code associated with the GPS receiver.

1   19. The method of Claim 18, wherein the step of obtaining a present time further

2 comprises the steps of:

3   accessing a table of mobile country codes and mobile network codes having

4 position data associated therewith;

5   comparing the present mobile country code and mobile network code with

6 entries in the table to locate a corresponding mobile country code and mobile network code;

7 and

8   determining if the position data has changed by a selected amount determining

9 if the position data has changed by a selected amount between the present mobile country

10 code and mobile network code and the corresponding mobile network code and mobile

11 country code; and

12   if the position data has not changed by the selected amount, determining a

13 time for a previously used time zone.

1   20.   A wireless communications device, comprising:

2   a wireless transceiver for establishing a connection with the Internet;

3   a GPS receiver for determining a position of the wireless communications

4   device;

5   a table including a plurality of mobile country code and mobile network code

6   pairs, each pair of mobile country codes and mobile network codes having a longitude and

7   latitude associated therewith;

8   a controller configured to:

9   determine at startup of the GPS receiver occurrence of at least one of

10   the following conditions: ephemeris data at the GPS receiver older than a

11   predetermined period of time and a change in a mobile country code and mobile

12   network code of the wireless communications device;

13   obtain an approximate position of the GPS receiver from the table

14   based upon a present mobile country code and mobile network code associated with

15   the GPS receiver.

16   obtain data for the GPS receiver from a reference server on the Internet

17   using the wireless transceiver responsive to occurrence of one of the conditions; and

18   determine a current position of the GPS receiver at a reduced

19   acquisition time using at least the obtained data and the approximate position.

1   21.   The wireless communications device of Claim 20, wherein the predetermined

2   period of time corresponds to approximately two hours.

1   22.   The wireless communication device of Claim 20, wherein the controller is

2   further configured to obtain ephemeris and almanac data from the reference server via the

3   internet.

1   23.   The wireless communication device of Claim 22, wherein the controller is

2   further configured to obtain ephemeris and almanac data using a Mobile Internet Protocol.

1   24.   The wireless communication device of Claim 22, wherein the controller is

2   further configured to obtain ephemeris and almanac data using a WAP protocol.

1   25.   The wireless communication device of Claim 20, wherein the controller is

2   further configured to compare a present mobile country code and mobile network code with a

3   previous mobile country code and mobile network code to determine a change has occurred

4   between mobile country code and mobile network code of the GPS receiver.

1   26.   The wireless communication device of Claim 20, wherein the approximate

2   position comprises a longitude and latitude.

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1   27.   The wireless communication device of Claim 20, wherein the controller is

2   further configured to:

3   access the table of mobile country codes and mobile network codes having

4   position data associated therewith;

5   compare the present mobile country code and mobile network code with

6   entries in the table to locate a corresponding mobile country code and mobile network code;

7   and

8   select the longitude and latitude associated with a corresponding mobile

9   country code and mobile network code as the approximate position of the GPS receiver.

1   28.   The wireless communication device of Claim 20, wherein the controller is

2   further configured to obtain a present time associated with the GPS receiver based upon the

3   mobile country code and the mobile network code associated with the GPS receiver.

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1   29.   The wireless communication device of Claim 28, wherein the controller is

2   further configured to:

3   access a table of mobile country codes and mobile network codes having

4   position data associated therewith;

5   compare the present mobile country code and mobile network code with

6   entries in the table to locate a corresponding mobile country code and mobile network code;

7   and

8   determine if the position data has changed by a selected amount;

9   if the position data has not changed by the selected amount, determine a time

10   for a previously used time zone.

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